

CLAIMS

- 1 1. A process of reducing cerebrospinal fluid flow obstruction
2 comprising:
3 administering a therapeutic dose of a clot-reducing agent to a subject
4 having preconditions or obstructive hydrocephalus symptoms; and
5 maintaining a therapeutic amount of the clot-reducing agent within the
6 subject for a period of time sufficient to reduce cerebrospinal fluid flow
7 obstruction.
- 1 2. The process of claim 1 wherein the administering is by catheter.
- 1 3. The process of claim 1 wherein the administering is by a device
2 selected from the group consisting of: intrathecal catheter, intraventricular
3 catheter and an injection.
- 1 4. The process of claim 1 wherein the clot-reducing agent is
2 selected from the group consisting of: a plasminogen activator, a
3 defibrinogenic agent, an anticoagulant, a platelet inhibitor and a combination
4 thereof.
- 1 5. The process of claim 4 wherein the plasminogen activator is
2 selected from the group consisting of: alteplase, reteplase, saruplase,
3 tenecteplase, lanoteplase, bat-PA, a combination thereof, a functional fragment
4 thereof, a pharmacologically acceptable salt, ester, amide, or prodrug thereof.
- 1 6. The process of claim 4 wherein the plasminogen activator is
2 tissue plasminogen activator, a functional fragment thereof, a
3 pharmacologically acceptable salt, ester, amide, or prodrug thereof.
- 1 7. The process of claim 4 wherein the plasminogen activator is
2 selected from the group consisting of: streptokinase, staphylokinase, a

3 combination thereof, a functional fragment of either streptokinase or
4 staphylokinase, a pharmacologically acceptable salt of either streptokinase or
5 staphylokinase, ester of either streptokinase or staphylokinase, amide of either
6 streptokinase or staphylokinase, or prodrug of either streptokinase or
7 staphylokinase.

1 8. The process of claim 4 wherein the plasminogen activator is
2 selected from the group consisting of: urokinase and pro-urokinase, a
3 combination thereof, a functional fragment of either urokinase or pro-
4 urokinase, a pharmacologically acceptable salt of either urokinase or pro-
5 urokinase, ester of either urokinase or pro-urokinase, amide of either urokinase
6 or pro-urokinase, or prodrug of either urokinase or pro-urokinase.

1 9. The process of claim 4 wherein the defibrinogenic agent is a
2 natural or synthetic reptile peptide, a combination thereof, a functional
3 fragment thereof, a pharmacologically acceptable salt, ester, amide, or prodrug
4 thereof.

1 10. The process of claim 9 wherein the reptile peptide is a snake
2 venom enzyme, a functional fragment thereof, a pharmacologically acceptable
3 salt, ester, amide, or prodrug thereof.

1 11. The process of claim 9 wherein the snake venom enzyme is
2 selected from the group consisting of calobin I, calobin II, gyroxin, acutin,
3 venzyme, asperase, reptilase, botropase, defibrase, crotalase, flavoxobin,
4 gabonase, hannahpep, a combination thereof, a functional fragment thereof, a
5 pharmacologically acceptable salt, ester, amide, or prodrug thereof.

1 12. The process of claim 4 wherein the defibrinogenic agent is
2 anicrod, a functional fragment thereof, a pharmacologically acceptable salt,
3 ester, amide, or prodrug thereof.

1 13. The process of claim 4 wherein the defibrinogenic agent is
2 batroxobin, a functional fragment thereof, a pharmacologically acceptable salt,
3 ester, amide, or prodrug thereof.

1 14. The process of claim 4 wherein the defibrinogenic agent is
2 argatroban, a functional fragment thereof, a pharmacologically acceptable salt,
3 ester, amide, or prodrug thereof.

1 15. The process of claim 4 wherein the anticoagulant is selected
2 from the group consisting of: heparin, a thrombin inhibitor and a combination
3 thereof.

1 16. The process of claim 15 wherein the thrombin inhibitor is
2 selected from the group consisting of: a coumarin derivative, thrombate,
3 lepirudin, hirudin, bivalirudan, melagatran and H376/95.

1 17. The process of claim 4 wherein the anticoagulant is a low
2 molecular weight heparin.

1 18. The process of claim 4 wherein the platelet inhibitor is a
2 GPIIb/IIIa antagonist.

1 19. The process of claim 4 wherein the platelet inhibitor inhibits
2 thromboxane A2 synthesis.

1 20. The process of claim 4 wherein the platelet inhibitor is aspirin, a
2 pharmacologically acceptable salt, ester, amide, or prodrug thereof.

1 21. The process of claim 4 wherein the platelet inhibitor is selected
2 from the group consisting of: ticlopidine and clopidogrel.

1 22. The process of claim 4 wherein the platelet inhibitor is selected
2 from the group consisting of: tirofiban and eptifibatide.

1 23. The process of claim 4 wherein the platelet inhibitor is
2 dipyridamole.

1 24. A process of reducing cerebrospinal fluid flow obstruction
2 comprising:

3 administering a therapeutic dose of a clot-reducing agent comprising
4 ancrod to a subject having obstructive hydrocephalus; and

5 maintaining a therapeutic amount of the clot-reducing agent comprising
6 ancrod within the subject for a period of time sufficient to reduce cerebrospinal
7 fluid flow obstruction.

1 25. A process of reducing cerebrospinal fluid flow obstruction
2 comprising:

3 administering a therapeutic dose of a clot-reducing agent comprising
4 batroxobin to a subject having preconditions or symptoms of obstructive
5 hydrocephalus; and

6 maintaining a therapeutic amount of the clot-reducing agent comprising
7 batroxobin within the subject for a period of time sufficient to reduce
8 cerebrospinal fluid flow obstruction.

1 26. A commercial kit for reducing obstructive hydrocephalus
2 comprising:

3 a clot-reducing agent; and

4 instructions for use in reducing obstructive hydrocephalus.

1 27. The commercial kit of claim 26 further comprising a catheter for
2 delivery of the clot-reducing agent to the cerebrospinal fluid of a subject.

1 28. The commercial kit of claim 26 wherein the clot-reducing agent
2 is selected from the group consisting of: a plasminogen activator, a
3 defibrinogenic agent, an anticoagulant, a platelet inhibitor and a combination
4 thereof.

1 29. The commercial kit of claim 26 wherein the plasminogen
2 activator is selected from the group consisting of: tissue plasminogen activator,
3 alteplase, reteplase, saruplase, tenecteplase, lanoteplase, streptokinase,
4 staphylokinase, urokinase, pro-urokinase and bat-PA.

1 30. The process of claim 26 wherein the anticoagulant is selected
2 from the group consisting of: heparin, a thrombin inhibitor and a platelet
3 inhibitor.

1 31. The commercial kit of claim 26 wherein the clot-reducing agent
2 is ancrod.

1 32. The commercial kit of claim 26 wherein the clot-reducing agent
2 is batroxobin.

1 33. The commercial kit of claim 26 wherein the clot-reducing agent
2 is argatroban.

1 34. The commercial kit of claim 26 wherein the clot-reducing agent
2 is streptokinase.

1 35. The commercial kit of claim 26 wherein the clot-reducing agent
2 is urokinase.

1 36. A process of reducing cerebrospinal fluid flow obstruction
2 substantially as described herein.

1 37. A commercial kit for reducing obstructive hydrocephalus
2 substantially as described herein.

1 38. A process of clot-reducing agent delivery substantially as
2 described herein.